



DEPARTMENT OF HEALTH & HUMAN SERVICES

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Public Health Service
Agency for Toxic Substances
and Disease Registry

REGION III, ATSDR

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Memorandum
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(Red)

Date

June 6, 1988

From

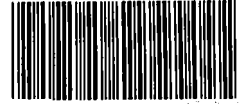
Assistant Director for Health Assessment Coordination
Office of Health Assessment

Subject

Preliminary Health Assessment:
Pigeon Point Landfill Site, New Castle, Delaware

To

Charles J. Walters
Public Health Advisor
EPA Region III



SEMS DocID

2330182

Enclosed are copies of the Preliminary Health Assessment for Pigeon Point Landfill Site. We have received and taken into account your comments and those of the EPA Regional Office in the enclosed final document. Although the ATSDR Communications Procedures (ATSDR Transmittal Notice TN-88.7) indicates that HACA will transmit completed Preliminary Health Assessments directly to the designated Regional EPA Branch Chief (with a cc to the ATSDR Regional Representative), this person has not yet been finally identified by EPA Headquarters. In the interim, would you please forward one of the enclosed copies to the appropriate Branch Chief. We appreciate your cooperation and assistance, especially during this transition period as we implement the new Communications Procedures.

John H. Mann for
Stephen D. Von Allmen

cc:

M. Bashor
G. Buynoski
B. Johnson
H. Longest

Health Assessment for

ORIGINAL
(Red)

PIGEON POINT LANDFILL SITE
(NEW CASTLE CITY LANDFILL)

NEW CASTLE, DELAWARE

MAY 11, 1988

Agency for Toxic Substances and Disease Registry
U.S. Public Health Service

THE ATSDR HEALTH ASSESSMENT: A NOTE OF EXPLANATION

Section 104(i)(7)(A) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended, states "...the term 'health assessments' shall include preliminary assessments of potential risks to human health posed by individual sites and facilities, based on such factors as the nature and extent of contamination, the existence of potential pathways of human exposure (including ground or surface water contamination, air emissions, and food chain contamination), the size and potential susceptibility of the community within the likely pathways of exposure, the comparison of expected human exposure levels to the short-term and long-term health effects associated with identified hazardous substances and any available recommended exposure or tolerance limits for such hazardous substances, and the comparison of existing morbidity and mortality data on diseases that may be associated with the observed levels of exposure. The Administrator of ATSDR shall use appropriate data, risk assessments, risk evaluations and studies available from the Administrator of EPA."

In accordance with the CERCLA section cited, ATSDR has conducted this preliminary health assessment on the data in the site summary form. Additional health assessments may be conducted for this site as more information becomes available to ATSDR.

PRELIMINARY HEALTH ASSESSMENT

PIGEON POINT LANDFILL SITE (NEW CASTLE CITY LANDFILL)
NEW CASTLE, DELAWARE
May 11, 1988

Prepared by:
Office of Health Assessment
Agency for Toxic Substances and Disease Registry (ATSDR)

Background

The Pigeon Point Landfill is listed by the U.S. Environmental Protection Agency (EPA) on the National Priorities List (NPL). The 180-acre site includes a former municipal landfill that reportedly received industrial wastes during the period from 1968 to 1985. Remedial efforts to date include closure and cover of the landfill and installation of leachate collection systems and monitoring wells. Access to the site is restricted by a fence.

Environmental Contamination and Physical Hazards

Initial sampling of groundwater and leachate revealed inorganic and organic chemicals at levels of health concern; however, per anecdotal information received from EPA, subsequent sampling has not confirmed initial sampling results. Only the original sampling data were available for this health assessment and since the data are questionable, they are not reported here.

No physical hazards were reported for this site.

Potential Environmental and Human Exposure Pathways

Environmental sampling for this site has been questioned as to its validity. Potential environmental pathways could include contaminated groundwater, surface water, soil and/or air. The most likely pathway from this site is groundwater although the impact of the site on groundwater is presently unknown. Groundwater is the sole water supply source for this area.

Potential exposure pathways could include ingestion of contaminated groundwater, surface water and/or soils; inhalation of contaminated dusts or volatile compounds; dermal contact with contaminated groundwater, surface water, and/or soils; and/or consumption of contaminated crops or other contaminated elements of a food chain. The most likely exposure pathways for this site include ingestion or dermal contact with contaminated groundwater and/or leachate.

Pigeon Point Landfill Site, New Castle, Delaware

Demographics

Demographic information for this site is unavailable. The population served by wells within a 3-mile radius of the site is estimated to be 150,000 persons.

Evaluation and Discussion

ATSDR cannot determine the potential health implications associated with this site because, per anecdotal discussions, the initial sampling data were invalid. Subsequent sampling data were unavailable, though EPA is apparently evaluating these data at this time for delisting the site. Until the valid sampling data is received by ATSDR, or the site is further characterized, no public health evaluation of this site is possible.

Conclusions and Recommendations

Based on the information available, this site is considered to be of potential public health concern because of the risk to human health caused by the possibility of exposure to hazardous substances via groundwater and leachate. However, information available on this site at present is of questionable validity. Additional information on contaminants released, populations potentially exposed, and environmental pathways through which the contaminants can reach these populations is needed. At a minimum, future investigations of this site should include a survey of wells used in the area, characterization of the site and site contaminants, samples of residential wells for known site contaminants (or priority pollutants), and a characterization of the hydrogeology of the area.

Further environmental characterization and sampling of the site and impacted off-site areas during the Remedial Investigation and Feasibility Study (RI/FS) should be designed to address the environmental and human exposure pathways discussed above. When additional information and data become available, e.g., the completed RI/FS, such material will form the basis for further assessment by ATSDR at a later date.